IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

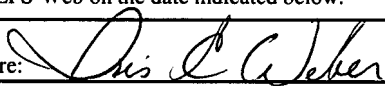|		
INVENTOR(S)	:	Lee C. Moore
TITLE	:	**AUTOMATIC AND SEMI-AUTOMATIC INDEX GENERATION FOR RASTER DOCUMENTS**
APPLICATION NO.	:	09/944,536
FILED	:	August 31, 2001
CONFIRMATION NO.	:	3291
EXAMINER	:	Kumiko C. Koyama
ART UNIT	:	2876
LAST OFFICE ACTION	:	June 12, 2007
ATTORNEY DOCKET NO.	:	A0A45-US-NP XERZ 2 00421

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

    The Applicant requests review of the final rejections in the above-identified application. The Applicant respectfully submits the following five pages including reasons for requesting a pre-appeal review of the above-captioned matter.

Certificate of Mailing or Transmission	
I hereby certify that this correspondence (and any item referred to herein as being attached or enclosed) is (are) being ☒ deposited with the United States Postal Service as First Class Mail, addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below. ☐ transmitted to the USPTO by electronic transmission via EFS-Web on the date indicated below.	
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Date: October 22, 2007	Name: Iris E. Weber

The Most Easily Understood Clear Errors of the Office Action

In the final rejections that were mailed June 12, 2007, claims 2, 4, 5, 7, 10-13, 18 and 20-28 were improperly grouped together in a common rejection (MPEP §707.07(d)). This improper grouping led the Examiner to overlook aspects of the individual claims and differences between the subject matter recited in the claims and that discussed in the cited documents by Sotomayor and by Gillings. Accordingly, the Office Actions include **clear errors** and pre-appeal brief review is respectfully requested.

For example, **independent claim 7** recites *inter alia*: wherein determining a sub-section delimiter definition comprises selecting an exemplary sub-section title, **performing one of document recognition and optical character recognition on the selected exemplary sub-section title** to determine at least one recognized property, and using the **at least one recognized property of the exemplary sub-section title as a sub-section delimiter** definition. As discussed in greater detail on pages 15 and 16 of Applicant's Amendment J, which was received in the Office on March 22, 2007, and again on page 13 of Applicant's Response K, which was filed electronically on July 16, 2007, the Office Action stipulates that Sotomayor fails to teach scanning a document to generate scanned document data and performing recognition functions on the scanned document data to generate a recognized version of the document. Additionally, it is respectfully submitted that **the Office Action does not even assert** that Sotomayor and Gillings disclose or suggest selecting an exemplary sub-section title, performing document recognition or optical character recognition on the selected exemplary sub-section title to determine at least one recognized property, and using the at least one recognized property of the exemplary sub-section title as a sub-section delimiter definition as is recited in claim 7.

Accordingly, the Office Action has not met its burden of presenting a *prima facie* case of obviousness, the rejection of claims 7 and 8 represent **clear errors** of the Office Action and pre-appeal review is respectfully requested.

Additionally, the Office Action relies on Gillings for disclosure of performing document recognition or optical character recognition in an index-generating environment. **However, Gillings does not disclose or suggest performing document or optical character recognition.** Instead, it is respectfully submitted that the scanned documents of Gillings are simply displayed (Fig. 3, document window 24) for review by various people, including, for example, first and second index operators (e.g., column 11, lines 20-21), an edit operator (column 11, line 57), a data entry A and a data entry B operator (column 12, lines 35-40), and a comment entry operator (column 13, lines 36-37). Accordingly, the assertions of the Office Action in this regard and the apparent reliance of the Office Action on Gillings for the subject matter that the Office Action stipulates is missing from Sotomayor represents clear errors of the Office Action and pre-appeal review is respectfully requested.

Additionally, the final Office Action was not fully responsive (see argument on page 4 in the first two paragraphs under "Reply to Response to Arguments" of Applicant's Response K.

Background

Other clear errors of the Office Action are most clearly explained if some background regarding the present Office Action and the cited documents is provided.

The Present Application

Briefly, the present application is directed to systems and methods for automatic and semi-automatic document indexing of scanned documents. The invention is useful where a large document is scanned to generate an

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electronic version of the document. For example, a review of the document may indicate that chapter headings in the document are rendered in an 18-point font size at a location that is centered horizontally on a page and is two inches from the top of the page. In that case, **a first subsection delimiter** may be defined as any text located two inches from the top of a page and rendered in 18-point font size. Subheadings in the exemplary document might occur anywhere on a page but are rendered in a 16-point font size with underlined characters. Therefore, **a second subsection delimiter** for the document might be defined as underlined 16-point text.

Once one or more subsection delimiters are defined (e.g., by a document processor user), the electronic version of the document is searched to find occurrences of text **corresponding to the subsection delimiters**. Information regarding each occurrence is used to create an index or table of contents for the document.

The Cited Documents

In stark contrast, the primary reference of the Office Action to Sotomayor is unrelated to providing an index for a document that has to be scanned in order to create an electronic version. Instead, Sotomayor discusses aspects of a word processor and the **much simpler problem** of automatically identifying key topics and phrases in the text of a document **that is being created in the word processor program.** Sotomayor discusses the use of tokens. However, the tokens of Sotomayor are to allow a web browser to use these tokens to format the displayed text for the particular display device of a particular viewer (column 6, lines 5-9). Even if Sotomayor discusses a system of automatic index creation that uses these tokens for the purpose of index creation, Sotomayor does not disclose or suggest a user designating identifying, indicating, selecting, these tokens for use as a delimiter or generating, building or designating a delimiter definition that includes such tokens. The system of Sotomayor is silent with regard to the user or document processing system operator defining a delimiter. The use of tokens in the system of Sotomayor is beyond the control of the user.

Gillings allegedly discusses an electronic document management system that converts documents into electronic images which can be sequentially routed to individual users in a network system. The network system includes **at least two work nodes** for processing the documents where **one of the nodes is a data entry work node**. At the **data entry work node**, data contained in the document is entered into a database. As the data is entered into the database, it is dynamically linked with its corresponding image (Abstract). Gillings includes the word -- indexing-- (e.g., column 10, line 20 - column 11, line 29). However, the indexing process of Gillings involves the manual keying of index information by a worker at a entry node. Accordingly, the combination of Sotomayor with the manual transcription system of Gillings does not arrive at the method for automatic index generation of the present application. It is submitted that the workers of Gillings MANUALLY create the index.

Additional details with regard to Sotomayor and Gillings can be found in Applicant's Amendment J.

Kuga, Schmidt and Herregods have been addressed in previous papers submitted by the Applicant including, for example, pages 13-14 of Applicant's Amendment D, which was mailed by the Applicant on August 6, 2004.

Additional Clear Errors of the Office Action

The Reply to Response to Arguments section of Applicant's Response K discusses **clear errors** of the Office Actions that are highlighted by the Response to Arguments portion of the final Office Action. For example, errors related to **impermissible hindsight reasoning** and assertions of the Office Action related to Sotomayor and alleged disclosures regarding generating an index for a document that is only available in paper or printed form and

Gillings lack of disclosure of placing a predetermined machine-readable symbol representing a demarcation point on a printed version of a document can be found on pages 4 and 5 of Response K.

Clear errors in fact with regard to assertions of the Office Action that Sotomayor and Gillings disclose or suggest selecting an exemplary sub-section title are discussed on pages 5 and 6. **Clear errors** in both logic and fact regarding assertions of the Office Action related to the tokens discussed above are discussed in the bottom half of page 6 of Response K. **Clear errors** in the characterization of the "user defined index fields" of Gillings and the fact that the subject matter of the present application seeks to eliminate the need for the manual data entry described in Gillings can be found in the top portion of page 7. Additional **clear errors** related to the incorrect interpretation of the indexing fields of Gillings are addressed in the middle portion of page 8, with regard to claim 10 and at the bottom portion of page 8 and top portion of page 9 with regard to claim 18.

Clear errors related to the Office Action being not completely responsive are discussed, for example, in the middle portion of page 9 through the top portion of page 11. In particular, failures of the Office Action to present *prima facie* cases of obviousness with regard to, for example, claims 20, 22, 23 and 28 are addressed in the cited portion of Response K.

With particular reference to claim 2, the failure of the Office Action to present a *prima facie* case of obviousness is discussed on pages 11 and 12 of Response K. Briefly, claim 2 recites *inter alia*: determining a subsection delimiter definition including at least one delimiter characteristic, wherein determining a subsection delimiter comprises a user indicating at least one of a font size, a font style, a text string, a text location description, and a specific point coordinate within the document or wherein determining a subsection delimiter comprises a user placing a predetermined machine-readable symbol representing a demarcation point on a printed version of the document as the subsection delimiter.

It is noted that the Office Action does not even assert that Sotomayor and/or Gillings discloses determining a subsection delimiter wherein determining the subsection delimiter comprises a user indicating a font size, a user indicating a font style, a user indicating a text string, a user indicating a text location description, a user indicating a specific point coordinate within the document, a user placing a predetermined machine-readable symbol representing a demarcation point on **a printed version** of the document as the sub-section delimiter.

For at least the foregoing reasons, the **Office has not met its burden** of presenting a *prima facie* case of obviousness, and claim 2, as well as claims 4-6, which depend therefrom, is not anticipated and is not obvious in light of Sotomayor and Gillings. Pre-appeal brief review is respectfully requested.

Errors in logic stemming from the stipulation or assertion of the Office Action that the tokens of Sotomayor are considered by the Office as sub-section delimiters and are predetermined machine-readable symbols are addressed at the bottom portion of page 12 and top portion of page 13 of Applicant's Response K. **Errors** of the Office Action made with regard to the rejection of claim 7 are addressed on pages 13 and 14 of Applicant's Response K. Clear errors of the Office Action related to the rejection of claim 10 are discussed on pages 14-15 of Applicant's Response K. The attention of the reviewers is directed to at least these portions of the earlier filed papers.

Independent claim 18 recites:

18.   A method for dividing a document into separate sections, the method comprising:
        scanning the document to generate scanned document data;
        performing recognition functions on the scanned document data to generate a recognized version of the document ;

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defining a sub-section delimiter, wherein defining the sub-section delimiter includes at least one of a document processor operator building a sub-section delimiter definition from a list of predetermined potential sub-section delimiter components, a document processor operator entering a sub-section delimiter through keyboard keystrokes, entering a sub-section delimiter by selecting symbols on a displayed portion of the electronic version of the document, and designating at least one demarcation point on at least one displayed portion of the electronic document to create a list of demarcation points to be used as a set of delimiter definitions;

searching the recognized version to find occurrences of items that correspond to the defined sub-section delimiter; and,

using the found items to separate the document into the separate sections.

It is respectfully submitted that the Office Action stipulates that Sotomayor does not disclose or suggest scanning a document and performing recognition functions on the scanned document data. The Office Action relies on Gillings for disclosure of performing recognition functions. **However, Gillings does not disclose or suggest performing recognition functions.** Indeed, the Office Action does not even assert that Gillings discloses recognition functions, even though the Office Action stipulates that Sotomayor does not disclose or suggest this aspect of claim 18 (e.g., see the middle paragraphs of page 3 of the Office Action).

Accordingly, the **Office Action has not met its burden of presenting a** _prima facie_ **case of obviousness** and includes **clear errors**. Other errors of the Office Action are also discussed on page 16 of Applicant's Response K.

Independent claim 20 recites:

20.   A method for dividing a document into separate sections, the method comprising:

scanning the document to generate scanned document data;

performing recognition functions on the scanned document data to generate a recognized version of the document ;

defining a sub-section delimiter, **wherein defining the sub-section delimiter comprises marking a paper version** of the document with at least one predetermined machine-readable demarcation symbol prior to scanning the document;

searching the recognized version to find occurrences of items that correspond to the defined sub-section delimiter; and,

using the found items to separate the document into the separate sections.

The Office Action does not even assert that Sotomayor and/or Gillings disclose performing recognition functions on scanned document data. Additionally, the explanation of the rejection of **claim 20** does not even assert that Sotomayor and Gillings disclose or suggest defining a subsection delimiter, wherein defining the subsection delimiter comprises marking a paper version of the document with at least one predetermined machine-readable demarcation symbol prior to scanning the document. Additionally, it is respectfully submitted that **the assertions of the Response to Arguments section with regard to this subject matter are incorrect. Sotomayor does not disclose or suggest marking a paper version of the document.** Gillings does not disclose or suggest marking a paper version of a document with at least one predetermined machine-readable demarcation symbol prior to scanning the document. Accordingly, the combination of Sotomayor and Gillings cannot disclose or suggest this subject matter.

For at least the foregoing reasons, the Office has not met its burden for presenting a _prima facie_ case of obviousness, and **claim 20** is not anticipated and is not obvious in light of Sotomayor and Gillings.

Independent **claim 22** recites _inter alia_: determining a subsection delimiter definition including at least one delimiter characteristic, wherein determining the subsection delimiter comprises **a user indicating** at least one of a font size and a font style.

It is respectfully submitted that the <u>Office Action does not even assert</u> that Sotomayor and Gillings disclose or suggest determining a subsection delimiter comprises a user indicating at least one of a <u>font size and a font style</u>.

Independent **claim 23** recites *inter alia*: determining a subsection delimiter definition including at least one delimiter characteristic, wherein determining a subsection delimiter comprises a user indicating at least one of a <u>font size</u>, a <u>font style and a specific point coordinate</u> within the document.

It is respectfully submitted that the <u>Office Action does not even assert</u> that Sotomayor and Gillings disclose or suggest determining a subsection delimiter comprises a user indicating at least one of a <u>font size</u>, a <u>font style and a specific point coordinate</u> within the document.

For at least the foregoing reasons, <u>the Office Action has not met its burden of presenting a *prima facie* case of obviousness</u>, and independent **claim 22 and 23**, as well as **claim 24 and 25**, which depend respectively therefrom, are not anticipated and are not obvious in light of Sotomayor and Gillings, and the rejections thereof represent **clear errors** of the Office Action.   **Claim 28** recites *inter alia*: <u>performing recognition functions</u> on scanned document data to generate a recognized version of the document and defining a subsection delimiter wherein defining the subsection delimiter comprises at least one of <u>a user building a subsection delimiter</u> from a list of predetermined potential subsection components, <u>performing statistical analysis</u> on recognized characters to select characteristics that are most likely to be associated with subsection delimiters, <u>a user entering a subsection delimiter by selecting symbols on a displayed portion</u> of the electronic version of the document and <u>designating at least one demarcation point on at least one displayed portion</u> of the electronic document to create a list of demarcation points to be used as a set of delimiter definitions.
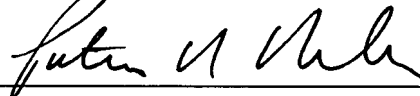
It is respectfully submitted that the <u>Office Action does not even assert</u> that Sotomayor and/or Gillings disclose these elements of **claim 28**. Accordingly, it is respectfully submitted that <u>the Office has not met its burden of presenting a *prima facie* case of obviousness</u> with regard to **claim 28**, and **claim 28** is not anticipated and is not obvious in light of Sotomayor and Gillings.

Additional clear errors of the Office Actions are discussed in Applicant's Amendment J and Response K and the attention of the reviewers is respectfully directed thereto.

For at least the foregoing reasons, pre-appeal brief review is respectfully requested.

Respectfully submitted,

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Date: <u>October 22, 2007</u>

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